

LLNL Livermore Site Second Quarter 2011 Self-Monitoring Report

The following is the second quarter 2011 self-monitoring data for the treatment facilities and Lake Haussmann at the Lawrence Livermore National Laboratory (LLNL) Livermore Site.

The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the second quarter of 2011 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, and chromium analyses (Tables A-1 through A-4). During the second quarter of 2011, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes. Monitoring data for Lake Haussmann are presented in Attachment C.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment D. The contour maps for the individual HSUs are based on data collected during the second quarter of 2011.

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Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, April through June 2011.

Treatment Area ^a	Month	Volume of ground water extracted (Kgal) ^b	Volume of vapor extracted (Kft ³) ^b
TFA	April	8,959	-
	May	10,631	-
	June	10,538	-
TFB	April	2,271	-
	May	2,478	-
	June	2,079	-
TFC	April	3,239	-
	May	4,288	-
	June	3,874	-
TFD	April	6,235	1,884
	May	6,580	1,776
	June	6,099	1,378
TFE	April	1,886	2,116
	May	1,794	1,846
	June	1,779	1,363
TFG	April	589	-
	May	742	-
	June	695	-
TFH	April	906	2,031
	May	985	2,336
	June	1,054	2,120
TOTAL^c		77,701	16,850

^a Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E, TFA-W

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

^b Totals are derived from individual extraction wells shown in Attachment B

^c Rounded number

Kft³ = thousands of cubic feet

Kgal = thousands of gallons

Table 2. VOC mass removed at the Livermore Site, April through June 2011.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	1.3	-	1.3
TFB	0.6	-	0.6
TFC	1.4	-	1.4
TFD	7.8	1.1	8.9
TFE	2.2	1.3	3.5
TFG	0.2	-	0.2
TFH	0.9	9.8	10.7
TOTAL^b	14.4	12.2	26.6

Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through June 2011.

Treatment Area^a	Volume of ground water extracted (Mgal)	Volume of vapor extracted (Kft³)
TFA	1,799	-
TFB	427	-
TFC	457	-
TFD	967	87,974
TFE	355	153,057
TFG	76	-
TFH	156	219,303
TOTAL^b	4,237	460,334

Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through June 2011.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	205	-	205
TFB	78	-	78
TFC	101	-	101
TFD	828	92	920
TFE	212	147	359
TFG	11	-	11
TFH	36	1,219	1,255
TOTAL^b	1,471	1,458	2,929

^a Refer to Table 1 footnote for facilities in each treatment facility area.^b Rounded number.

Abbreviations for Tables 2, 3 and 4:

Kft³ = thousands of cubic feet.

Kg = Kilograms.

Mgal = millions of gallons.

VOC = Volatile organic compound.

Attachment A

VOC, and Chromium

Analyses

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
TFA-I001	05-APR-11	E601	<0.5	1	0.91	<0.5	1.4	<1	<0.5	6.5	<0.5	1.1	<0.5
TFA-I001	02-MAY-11	E601	<0.5	1	0.93	<0.5	1.4	<1	<0.5	6.7	<0.5	0.72	<0.5
TFA-I001	01-JUN-11	E601	<0.5	0.96	0.95	<0.5	1.5	<1	<0.5	7.1	<0.5	0.71	<0.5
TFA-E001	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	02-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E													
W-254	04-APR-11	E601	<0.5	<0.5	<0.5	<0.5	0.69	<1	<0.5	40	<0.5	1.2	<0.5
STU06-I	02-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.73	<1	<0.5	40	<0.5	1.2	<0.5
STU06-I	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	43	<0.5	1.2	<0.5
STU06-E	04-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	02-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-W^{ab}													
W-404	21-APR-11	E601	<0.5	<0.5	1.5	<0.5	2.5	<1	<0.5	9.9	<0.5	0.52	<0.5
TFA-W-E	21-APR-11	E624	<1	<1	1.4	<1	2.4	<1	<1	10	<1	0.53	<1
TFB													
TFB-I002	05-APR-11	E601	0.51	2.4	<0.5	<0.5	1.6	<1	3.8	1.4	<0.5	12	<0.5
TFB-I002	02-MAY-11	E601	<0.5	2.2	<0.5	<0.5	1.6	<1	3.4	1.3	<0.5	10	<0.5
TFB-I002	01-JUN-11	E601	0.55	2.5	<0.5	<0.5	1.9	<1	3.7	1.6	<0.5	14	<0.5
TFB-E002	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	02-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC													
TFC-I003	05-APR-11	E601	<0.5	0.95	<0.5	<0.5	0.72	<1	10	2.4	<0.5	8.8	<0.5
TFC-I003	03-MAY-11	E601	<0.5	0.99	<0.5	<0.5	0.78	<1	10	2.5	<0.5	9.3	<0.5
TFC-I003	02-JUN-11	E601	<0.5	1	<0.5	<0.5	0.84	<1	10	2.8	<0.5	9.8	<0.5
TFC-E003	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	03-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	02-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E													
MTU1-I	20-APR-11	E601	<0.5	12	<0.5	<0.5	0.7	<1	11	0.55	<0.5	7.7	2.9
MTU1-I	04-MAY-11	E601	<0.5	16	<0.5	<0.5	1.2	<1	16	0.77	<0.5	10	5.1
MTU1-I	01-JUN-11	E601	<0.5	14	<0.5	<0.5	1.2	<1	12	0.68	<0.5	9.1	4.4
MTU1-E	20-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	04-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-SE													
PTU1-I	04-APR-11	E601	<0.5	7.8	<0.5	<0.5	2.8	<1	16	0.59	<0.5	17	0.95
PTU1-I	03-MAY-11	E601	<0.5	7.2	<0.5	<0.5	3	<1	17	0.62	<0.5	17	0.94
PTU1-I	02-JUN-11	E601	<0.5	7.7	<0.5	<0.5	3.1	<1	17	0.63	<0.5	17	1
PTU1-E	04-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	03-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	02-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD													
TFD-I004	04-APR-11	E601	2.5	1.9	<0.5	<0.5	0.53	<1	<0.5	0.7	<0.5	53	29
TFD-I004	03-MAY-11	E601	2.7	2	<0.5	<0.5	0.61	<1	0.59	0.81	<0.5	57	33
TFD-I004	02-JUN-11	E601	2.8	2	<0.5	<0.5	0.67	<1	0.6	0.85	<0.5	61	32
TFD-E004	04-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	03-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E													
PTU8-I	05-APR-11	E601	4	1.5	<0.5	1.1	5.3	<1	0.54	5.7	<0.5	100	1.4
PTU8-I	04-MAY-11	E601	3.2	1.4	<0.5	1	2.5	<1	<0.5	2.5	<0.5	89	1.6
PTU8-I	01-JUN-11	E601	3.8	1.5	<0.5	1.3	5.7	<1	<0.5	5.8	<0.5	98	1.2
PTU8-E	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	04-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-HPD^c													
TFD-S													
PTU2-I	21-APR-11	E601	1.3	2.8	<0.5	<0.5	5.1	<1	1.4	6.5	<0.5	68	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-S (cont.)													
PTU2-I	09-MAY-11	E601	1.2	2.6	<0.5	<0.5	5.6	<1	1.4	6.2	<0.5	64	<0.5
PTU2-I	16-JUN-11	E601	0.97	2.3	<0.5	<0.5	6	<1	1.4	7.5	<0.5	62	<0.5
PTU2-E	21-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	09-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	16-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SE													
PTU11-I	05-APR-11	E601	0.85	6.8	0.81	1.4	12	<1	2.8	22	<0.5	130	<0.5
PTU11-I	11-MAY-11	E601	<0.5	2.7	<0.5	0.73	6.9	<1	1.1	19	<0.5	59	<0.5
PTU11-I	01-JUN-11	E601	0.73	5.2	0.88	1.7	13	<1	2.1	38	<0.5	110	<0.5
PTU11-E	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	11-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SS													
PTU12-I	12-APR-11	E601	1.9	2.3	0.77	2.7	12	<1	0.55	22	<0.5	130	6.9
PTU12-I	05-MAY-11	E601	2	2.4	0.75	2.4	13	<1	0.61	21	<0.5	120	6.1
PTU12-I	16-JUN-11	E601	2.1	2.7	0.74	2.4	13	<1	0.65	23	<0.5	130	6.2
PTU12-E	12-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	05-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	16-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-W													
PTU6-I	13-APR-11	E601	<0.5	4	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.8	57
PTU6-I	10-MAY-11	E601	<0.5	4.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.7	55
PTU6-I	07-JUN-11	E601	<0.5	4.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.8	57
PTU6-E	13-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	10-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	07-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-E													
PTU3-I	12-APR-11	E601	<0.5	3.7	<0.5	<0.5	20	<1	8.2	29	<0.5	100	<0.5
PTU3-I	05-MAY-11	E601	<0.5	3.8	<0.5	<0.5	18	<1	8.6	20	<0.5	88	<0.5
PTU3-I	13-JUN-11	E601	<0.5	3.9	<0.5	<0.5	13	<1	7.3	14	<0.5	79	<0.5
PTU3-E	12-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-E (cont.)													
PTU3-E	05-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	13-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-HS													
GTU07-I	12-APR-11	E601	<0.5	2.4	<0.5	<0.5	3.1	4.5	6.8	15	<0.5	350	<0.5
GTU07-I	05-MAY-11	E601	<0.5	1.8	<0.5	<0.5	3.6	4.1	6.6	15	<0.5	320	<0.5
GTU07-I	13-JUN-11	E601	<0.5	1.5	<0.5	<0.5	4	3.3	7.7	17	<0.5	350	<0.5
GTU07-E	12-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	05-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	13-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-NW													
PTU9-I	12-APR-11	E601	<0.5	1.3	<0.5	<0.5	0.53	<1	1	0.57	<0.5	14	<0.5
PTU9-I	09-MAY-11	E601	<0.5	1.4	<0.5	<0.5	0.61	<1	1.1	<0.5	<0.5	13	<0.5
PTU9-I	16-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	0.98	<1	<0.5	1.4	<0.5	23	<0.5
PTU9-E	12-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	09-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	16-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SE													
W-359	05-APR-11	E601	4.5	1	<0.5	<0.5	23	<1	7.4	8.6	<0.5	260	1.2
MTU04-I	04-MAY-11	E601	4.4	1.1	<0.5	<0.5	24	<1	7.2	8.4	<0.5	270	1.3
MTU04-I	01-JUN-11	E601	4.8	1.2	<0.5	<0.5	26	<1	7.5	9.2	<0.5	280	1.5
MTU04-E	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	04-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SW													
MTU03-I	13-APR-11	E601	<0.5	<0.5	<0.5	<0.5	1.5	1.5	2	0.69	<0.5	11	<0.5
MTU03-I	10-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	1.8	1.6	2.6	0.83	<0.5	12	<0.5
MTU03-I	07-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	1.8	1.5	3.2	0.78	<0.5	12	<0.5
MTU03-E	13-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	10-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	07-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-W													
MTU05-I	13-APR-11	E601	<0.5	1.2	<0.5	<0.5	2.7	1.4	14	5.7	<0.5	32	0.51
MTU05-I	10-MAY-11	E601	<0.5	1.2	<0.5	<0.5	3	1.7	14	6	<0.5	31	<0.5
MTU05-I	07-JUN-11	E601	<0.5	1.1	<0.5	<0.5	2.7	1.4	13	5.8	<0.5	31	<0.5
TFG-1													
W-1111	20-APR-11	E601	2.7	10	<0.5	<0.5	1.3	<1	0.58	1.1	<0.5	4.2	<0.5
GTU01-I	10-MAY-11	E601	2.6	10	<0.5	<0.5	1.3	<1	0.52	1.1	<0.5	4	<0.5
GTU01-I	13-JUN-11	E601	2.7	10	<0.5	<0.5	1.3	<1	0.5	1.1	<0.5	4	<0.5
TFG-N													
MTU02-I	20-APR-11	E601	<0.5	2.5	<0.5	<0.5	1.2	<1	1.3	15	<0.5	5	<0.5
MTU02-I	10-MAY-11	E601	<0.5	2.3	<0.5	<0.5	1.3	<1	1.2	17	<0.5	5.2	<0.5
MTU02-I	13-JUN-11	E601	<0.5	2.2	<0.5	<0.5	1.5	<1	1.2	17	<0.5	5.4	<0.5
TF406													
PTU5-I	15-APR-11	E601	<0.5	0.98	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.6	<0.5
PTU5-I	10-MAY-11	E601	<0.5	0.98	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.4	<0.5
PTU5-I	07-JUN-11	E601	<0.5	0.97	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.4	<0.5
TF406-NW													
W-1801	20-APR-11	E601	<0.5	2.1	<0.5	<0.5	<0.5	<1	7.5	0.75	<0.5	29	<0.5
GTU03-I	09-MAY-11	E601	<0.5	2	<0.5	<0.5	<0.5	<1	7.4	0.79	<0.5	27	<0.5
GTU03-I	16-JUN-11	E601	<0.5	1.8	<0.5	<0.5	<0.5	<1	6	0.82	<0.5	27	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF406-NW (cont.)													
GTU03-E	20-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	09-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	16-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF518-N^d													
W-1410	16-JUN-11	E601	3.4	3.1	<0.5	0.66	<0.5	<1	<0.5	0.78	<0.5	26	<0.5
TF5475-1^e													
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TF5475-2													
GTU09-I	05-APR-11	E601	1.5	17	<0.5	1.9	16	<1	6.9	27	<0.5	230	<0.5
GTU09-I	02-MAY-11	E601	1.5	17	<0.5	1.9	16	<1	6.6	27	<0.5	220	<0.5
GTU09-I	01-JUN-11	E601	1.6	17	0.5	2	18	<1	6.9	27	<0.5	230	<0.5
GTU09-E	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	02-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	01-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF5475-3^f													
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Notes on following page.

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

^a TFA-W effluent is discharged to the Livermore Water Reclamation Plant in accordance with Permit #151OG (2006-2008). The discharge limit for Total Toxic Organics is 1.0 mg/L.

^b TFA-W sampling has been reduced from monthly to quarterly beginning this reporting period.

^c TFD-HPD has been modified to operate as a circulation cell to perform in situ bioremediation of contaminated ground water and sediments.

^d TF518-N did not operate during this reporting period due to mixed waste disposition issues.

^e TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

^f TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CCl₄ = Carbon tetrachloride

CHCl₃ = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
W-109	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	0.55	<1	<0.5	1.9	<0.5	<0.5	<0.5
W-262	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-408	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.62	<0.5	<0.5	<0.5
W-415	06-APR-11	E601	<0.5	1.1	0.72	<0.5	1.6	<1	<0.5	13	<0.5	1.1	<0.5
W-457	06-APR-11	E601	<0.5	<0.5	1.2	<0.5	1.3	<1	<0.5	8	<0.5	<0.5	<0.5
W-518	06-APR-11	E601	<0.5	<0.5	5.6	<0.5	2.3	<1	<0.5	3	<0.5	<0.5	<0.5
W-522	06-APR-11	E601	<0.5	<0.5	2.1	<0.5	1.6	<1	<0.5	4	<0.5	<0.5	<0.5
W-605	06-APR-11	E601	<0.5	0.58	0.94	<0.5	1.3	<1	<0.5	18	<0.5	0.89	<0.5
W-614	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	6.6	<0.5	<0.5	<0.5
W-712	06-APR-11	E601	3.2	3.3	1.3	<0.5	4.3	<1	<0.5	1.9	<0.5	3.6	<0.5
W-714	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	8.4	<0.5	<0.5	<0.5
W-903	06-APR-11	E601	<0.5	<0.5	1.8	<0.5	1.4	<1	<0.5	5.8	<0.5	<0.5	<0.5
W-904	10-MAY-11	E601	<0.5	<0.5	0.75	<0.5	1.3	<1	<0.5	7.4	<0.5	<0.5	<0.5
W-1001	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	06-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	2.6	<0.5	<0.5	<0.5
W-1009	06-APR-11	E601	1.2	5.8	0.86	<0.5	3.7	<1	0.64	13	<0.5	2.1	<0.5
TFA-E													
W-254	04-APR-11	E601	<0.5	<0.5	<0.5	<0.5	0.69	<1	<0.5	40	<0.5	1.2	<0.5
TFA-W													
W-404	21-APR-11	E601	<0.5	<0.5	1.5	<0.5	2.5	<1	<0.5	9.9	<0.5	0.52	<0.5
TFB													
W-357	05-APR-11	E601	1.6	3	<0.5	<0.5	1.6	<1	4.9	1	<0.5	34	<0.5
W-610	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	2.1	<1	2.7	0.98	<0.5	2.7	<0.5
W-620	05-APR-11	E601	<0.5	1.5	<0.5	<0.5	1.4	<1	2.3	1.3	<0.5	5.2	<0.5
W-621	05-APR-11	E601	<0.5	0.8	<0.5	<0.5	0.6	<1	1.2	<0.5	<0.5	4	<0.5
W-655	05-APR-11	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	4	<0.5	<0.5	2.5	<0.5
W-704	05-APR-11	E601	0.67	4.2	<0.5	<0.5	2.3	<1	5.8	2.8	<0.5	22	<0.5
W-1423	05-APR-11	E601	0.88	5.8	<0.5	<0.5	3.8	<1	4	1.9	<0.5	10	<0.5
TFC													
W-701	05-APR-11	E601	<0.5	2.1	<0.5	<0.5	1.6	<1	31	2.2	<0.5	18	<0.5
W-1015	05-APR-11	E601	<0.5	0.57	<0.5	<0.5	0.95	<1	2.1	1.1	<0.5	5.2	<0.5
W-1102	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	3.1	<0.5	<0.5	1.8	<0.5
W-1103	05-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.4	<0.5
W-1104	05-APR-11	E601	<0.5	0.54	<0.5	<0.5	<0.5	<1	2	3.3	<0.5	6.5	<0.5
W-1116	05-APR-11	E601	<0.5	1.5	<0.5	<0.5	0.52	<1	7.1	2.4	<0.5	5.3	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E													
W-368	20-APR-11	E601	<0.5	9.5	<0.5	<0.5	0.56	<1	21	2.4	<0.5	15	5.6
W-413	20-APR-11	E601	<0.5	16	<0.5	<0.5	1.1	<1	14	<0.5	<0.5	7.9	3.9
TFC-SE													
W-1213	04-APR-11	E601	<0.5	6.1	<0.5	<0.5	3.2	<1	10	<0.5	<0.5	16	<0.5
W-2201	04-APR-11	E601	<0.5	8.6	<0.5	<0.5	2.5	<1	20	0.79	<0.5	18	1.3
TFD													
W-351	04-APR-11	E601	13	2.7	<0.5	1.1	5.4	<1	2.6	5.9	<0.5	290	2.3
W-653	16-JUN-11	E601	6.1	4.2	<0.5	<0.5	<0.5	7.5	0.65	<0.5	<0.5	74	<0.5
W-906	04-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.7	<0.5
W-907-2 ^a	08-APR-09	E601	<0.5	7.2	<0.5	0.6	4.2	<1	1.6	7.8	<0.5	92	<0.5
W-2011	16-JUN-11	E601	<0.5	1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	14	<0.5
W-2101	04-APR-11	E601	13	4	<0.5	<0.5	0.53	<1	1.8	0.58	<0.5	380	<0.5
W-2102	16-JUN-11	E601	13	11	<0.5	<0.5	<0.5	<1	2.2	<0.5	<0.5	860	<0.5
W-1206	04-APR-11	E601	0.85	0.97	<0.5	<0.5	0.51	<1	<0.5	<0.5	<0.5	18	<0.5
W-1208	04-APR-11	E601	2.5	2.2	<0.5	<0.5	<0.5	<1	0.51	0.56	<0.5	53	40
TFD-E													
W-2006	15-JUN-11	E601	0.82	2.9	4.6	13	160	2	<0.5	100	<0.5	950	<0.5
W-1253 ^b	15-JUN-11	E601	120	36	<5	<5	21	<10	14	21	<5	2700	<5
W-1255 ^b	15-JUN-11	E601	<5	<5	<5	<5	<5	<10	<5	<5	<5	91	<5
W-1301	05-APR-11	E601	2.4	1.6	1	2.9	32	<1	<0.5	33	<0.5	150	<0.5
W-1303	05-APR-11	E601	4.2	3.4	1.4	5	9.8	2.1	<0.5	9.8	<0.5	180	8.3
W-1306	05-APR-11	E601	2.5	2.2	<0.5	<0.5	<0.5	<1	<0.5	1.9	<0.5	73	<0.5
W-1307	05-APR-11	E601	2.9	0.77	<0.5	<0.5	<0.5	<1	<0.5	0.6	<0.5	50	<0.5
W-1404	13-APR-11	E601	1	3.3	1	8.7	13	1.3	<0.5	22	<0.5	140	0.98
W-1550	15-JUN-11	E601	5.6	4.9	<0.5	<0.5	0.66	<1	<0.5	2.2	<0.5	150	<0.5
W-2203	05-APR-11	E601	14	2.7	<0.5	<0.5	3.1	<1	2.9	7.9	<0.5	110	<0.5
TFD-HPD													
W-1254	21-JUN-11	E601	0.8	0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	28	<1
W-1551 ^a	07-FEB-11	E601	5.4	1.9	<0.5	<0.5	<0.5	<1	1.8	3.9	<0.5	160	<0.5
W-1650 ^b	21-JUN-11	E601	1.1	1.3	<1	<1	<1	<2	<4	<1	<1	110	<2
W-1653 ^b	21-JUN-11	E601	1.5	1.6	<1	<1	<1	<2	<4	1.1	<1	130	<2
W-1655	21-JUN-11	E601	0.9	1.7	<0.5	<0.5	<0.5	<1	<2	3	<0.5	70	<1
W-1657 ^b	21-JUN-11	E601	4.6	<2.5	<2.5	<2.5	<2.5	<5	<10	<2.5	<2.5	410	<5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-S													
W-1503	16-JUN-11	E601	2	2.3	<0.5	<0.5	2.7	<1	0.71	3.1	<0.5	62	<0.5
W-1504	21-APR-11	E601	<0.5	1.5	<0.5	<0.5	11	1.2	2.8	15	<0.5	87	<0.5
W-1510	21-APR-11	E601	<0.5	4.6	<0.5	<0.5	1.3	<1	<0.5	2.2	<0.5	16	0.82
TFD-SE													
W-314	05-APR-11	E601	0.64	5.3	0.74	0.83	6	<1	2.6	11	<0.5	89	<0.5
W-2005	20-JUN-11	E601	<0.5	0.83	<0.5	<0.5	12	<1	<0.5	47	<0.5	37	<0.5
W-1308	20-JUN-11	E601	<0.5	1.3	1.1	2.7	19	<1	<0.5	95	<0.5	97	<0.5
W-1403	05-APR-11	E601	2.5	18	1.5	5.6	48	<1	4.1	85	<0.5	390	<0.5
W-1904	27-JUN-11	E601	<0.5	<0.5	<0.5	<0.5	15	1.8	<0.5	57	<0.5	24	<0.5
SIP-ETC-201	15-JUN-11	E601	<0.5	1.1	3.9	1.2	86	<1	<0.5	480	<0.5	300	<0.5
TFD-SS													
W-1523	12-APR-11	E601	4.4	3.1	<0.5	1.5	14	<1	1.5	19	<0.5	140	<0.5
W-1601	12-APR-11	E601	4	4.3	1.5	5.6	26	1.1	1.5	91	<0.5	250	<0.5
W-1602	12-APR-11	E601	<0.5	1.5	<0.5	<0.5	0.57	<1	<0.5	1.3	<0.5	12	7.4
W-1603	12-APR-11	E601	1.5	2.3	1.1	4.2	15	1.1	<0.5	27	<0.5	160	10
TFD-W													
W-1215	13-APR-11	E601	<0.5	6.3	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.2	25
W-1216	13-APR-11	E601	<0.5	3.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.4	48
W-1902	13-APR-11	E601	0.63	3.2	<0.5	<0.5	<0.5	<1	0.53	<0.5	<0.5	7.1	81
TFE-E													
W-566	12-APR-11	E601	0.61	4.8	<0.5	<0.5	5.2	<1	8.5	4.4	<0.5	59	<0.5
W-1109	12-APR-11	E601	<0.5	0.59	<0.5	<0.5	38	<1	7.4	62	<0.5	190	<0.5
W-1903	12-APR-11	E601	<0.5	<0.5	<0.5	<0.5	26	<1	6.7	25	<0.5	43	<0.5
W-1909	25-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	14	<1	0.72	13	<0.5	19	<0.5
W-2305	12-APR-11	E601	<0.5	0.84	1.2	<0.5	87	1.1	17	150	<0.5	410	<0.5
TFE-HS													
W-2012 ^a	04-OCT-10	E601	2.4	2.1	<0.5	<0.5	7.4	2.2	4.3	9.2	<0.5	270	<0.5
W-2105	12-APR-11	E601	<0.5	2.5	<0.5	<0.5	3.5	4.3	9.4	18	<0.5	370	<0.5
TFE-NW													
W-1211	12-APR-11	E601	<0.5	1.7	<0.5	<0.5	<0.5	<1	1.3	<0.5	<0.5	9.7	<0.5
W-1409	12-APR-11	E601	<0.5	<0.5	<0.5	<0.5	0.97	<1	<0.5	1.5	<0.5	24	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ -<	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-SE													
W-359	05-APR-11	E601	4.5	1	<0.5	<0.5	23	<1	7.4	8.6	<0.5	260	1.2
TFE-SW													
W-1518	13-APR-11	E601	<0.5	<0.5	<0.5	<0.5	1.5	1.4	2	0.72	<0.5	11	<0.5
W-1520	13-APR-11	E601	12	9.2	<0.5	4	3	5.6	<0.5	14	<0.5	320	<0.5
W-1522	13-APR-11	E601	1.7	4	1.1	<0.5	7.6	17	1.7	1.6	<0.5	73	<0.5
TFE-W													
W-292	13-APR-11	E601	<0.5	0.9	<0.5	<0.5	1.2	2.8	1.5	1.2	<0.5	22	<0.5
W-305	13-APR-11	E601	<0.5	1.4	<0.5	<0.5	3.4	<1	21	8.4	<0.5	38	0.75
TFG-1													
W-1111	20-APR-11	E601	2.7	10	<0.5	<0.5	1.3	<1	0.58	1.1	<0.5	4.2	<0.5
TFG-N													
W-1806	20-APR-11	E601	<0.5	1.8	<0.5	<0.5	0.52	<1	<0.5	12	<0.5	3.3	<0.5
W-1807	20-APR-11	E601	<0.5	2.9	<0.5	<0.5	1.6	<1	1.9	18	<0.5	6.2	<0.5
TF406													
W-1309	15-APR-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.9	<0.5
W-1310	15-APR-11	E601	<0.5	0.92	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.3	<0.5
TF406-NW													
W-1801	20-APR-11	E601	<0.5	2.1	<0.5	<0.5	<0.5	<1	7.5	0.75	<0.5	29	<0.5
TF518-N^c													
W-1410	16-JUN-11	E601	3.4	3.1	<0.5	0.66	<0.5	<1	<0.5	0.78	<0.5	26	<0.5
TF518-PZ													
W-1615	06-APR-11	E601	<0.5	0.58	<0.5	<0.5	2.9	<1	<0.5	23	<0.5	110	<0.5
W-518-1913	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	3.8	<0.5	29	<0.5
W-518-1914	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	92	<0.5	41	<0.5
W-518-1915	06-APR-11	E601	<0.5	0.51	<0.5	<0.5	3.8	<1	<0.5	88	<0.5	820	<0.5
SVB-518-201 ^a	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5
SVB-518-204 ^a	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
TF5475-1^c													
W-1302-2 ^a	03-MAR-11	E601	4	58	2	9.1	43	3.3	13	83	<0.5	660	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF5475-2													
W-1108	05-APR-11	E601	1.5	17	<0.5	1.9	15	<1	7	27	<0.5	240	<0.5
W-1415	27-JUN-11	E601	<0.5	4.2	<0.5	<0.5	1.2	<1	<0.5	2.6	<0.5	20	<0.5
TF5475-3^c													
W-1604	22-JUN-11	E601	8	120	3.4	28	87	14	15	150	<0.5	1500	<0.5
W-1605	22-JUN-11	E601	<0.5	48	0.94	6.5	4.6	<1	<0.5	8.1	<0.5	91	<0.5
W-1608	22-JUN-11	E601	<0.5	23	<0.5	2.6	1.9	6.7	<0.5	5.9	<0.5	46	<0.5
W-1609	22-JUN-11	E601	<0.5	34	0.64	3.8	7.4	4.5	<0.5	19	<0.5	88	<0.5

Notes on following page.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

^a Most recent VOC sample results available.

^b Elevated detection limit due to dilution.

^c Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

Notes:

CCl₄ = Carbon tetrachloride

CHCl₃ = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTFD-ETCS													
W-1904	15-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	0.22	<0.005	0.13	<0.005
W-ETC-2003	05-MAY-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.013	<0.005	<0.005	0.12	<0.005	0.058	<0.005
W-ETC-2004A	05-MAY-11	TO15DIT	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	0.31	<0.005	0.12	<0.005
W-ETC-2004B	05-MAY-11	TO15DIT	<0.005	0.014	0.0074	<0.005	0.084	<0.005	<0.005	1.1	<0.005	1	<0.005
SIP-ETC-201	15-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.046	<0.005
VTFD-HS^a													
W-653 ^b	03-NOV-09	TO15DIT	0.026	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	<0.005	0.58	<0.005
W-2011 ^b	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.081	<0.005
W-2101 ^b	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
W-2102 ^b	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.11	<0.005
VTFE-ELM													
W-1903	06-JUN-11	TO15DIT	<0.005	<0.005	0.006	<0.005	0.52	<0.005	0.23	0.8	<0.005	1	<0.005
W-1909	12-MAY-11	TO15DIT	<0.021	<0.021	<0.021	<0.021	3.7	<0.021	0.69	1.6	<0.021	1.6	<0.021
W-2305	12-MAY-11	TO15DIT	<0.023	<0.023	<0.023	<0.023	1.4	<0.023	0.54	2	<0.023	3	<0.023
W-543-001	12-MAY-11	TO15DIT	<0.017	<0.017	<0.017	<0.017	0.019	<0.017	<0.017	1.1	<0.017	0.27	<0.017
W-543-003	12-MAY-11	TO15DIT	<0.01	0.018	<0.01	<0.01	0.12	<0.01	0.04	0.5	<0.01	0.73	<0.01
W-543-1908	12-MAY-11	TO15DIT	<0.012	<0.012	<0.012	<0.012	0.024	<0.012	<0.012	0.13	<0.012	0.43	<0.012
VTFE-HS													
W-2105	14-APR-11	TO15DIT	<0.01	<0.01	<0.01	<0.01	0.033	0.043	0.26	0.59	<0.01	6.4	<0.01
W-ETS-2008A	18-MAY-11	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.025	<0.01	0.033	<0.01
W-ETS-2008B	14-APR-11	TO15DIT	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	0.022	0.5	<0.021	1.3	<0.021
W-ETS-2009	18-MAY-11	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	0.051	<0.01
W-ETS-2010A	26-MAY-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.018	<0.005	0.072	<0.005
W-ETS-2010B	14-APR-11	TO15DIT	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	0.03	0.22	<0.01	0.7	<0.01
VTF406-HS													
W-217	14-APR-11	TO15DIT	0.14	0.025	<0.012	<0.012	0.96	<0.012	0.15	1.4	<0.012	2.5	<0.012
W-514-2007A	14-APR-11	TO15DIT	<0.012	<0.012	<0.012	<0.012	0.021	<0.012	<0.012	0.077	<0.012	0.25	0.049
W-514-2007B	14-APR-11	TO15DIT	0.065	0.013	<0.011	<0.011	0.42	<0.011	0.057	0.46	<0.011	1.6	0.015
VTF511													
W-274	15-JUN-11	TO15DIT	0.0087	0.0082	<0.005	<0.005	0.0075	<0.005	<0.005	0.019	<0.005	0.52	0.022
W-1517	15-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0058	<0.005	0.14	0.0077
W-2204	23-JUN-11	TO15DIT	0.11	0.038	<0.0084	0.044	0.026	<0.0084	0.012	0.56	<0.0084	5.2	<0.0084
W-2205	23-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.031	<0.005	0.26	<0.005
W-2206	23-JUN-11	TO15DIT	0.005	0.0096	<0.005	0.038	<0.005	<0.005	<0.005	0.15	<0.005	1.1	<0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTF511 (cont.)													
W-2207A	15-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	0.68	<0.005
W-2207B	14-APR-11	TO15DIT	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.025	<0.011	3.2	<0.011
W-2208A	15-JUN-11	TO15DIT	0.068	0.042	<0.017	<0.017	0.17	0.023	<0.017	0.079	<0.017	13	0.036
W-2208B	14-APR-11	TO15DIT	0.33	0.12	0.087	<0.057	1.4	0.17	0.15	0.72	<0.057	34	0.1
VTF518-PZ													
W-1615	14-APR-11	TO15DIT	0.021	<0.014	<0.014	<0.014	0.37	<0.014	0.095	1.4	<0.014	5.7	<0.014
W-518-1913	20-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0097	<0.005
W-518-1914	16-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	3.7	0.009	0.58	<0.005
W-518-1915	14-APR-11	TO15DIT	<0.021	<0.021	<0.021	<0.021	0.12	<0.021	<0.021	12	<0.021	15	<0.021
SVB-518-201	20-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SVB-518-204	16-JUN-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.032	<0.005
VTF5475^c													
W-ETS-507	20-JUN-11	TO15DIT	<0.005	2.8	0.0056	0.39	0.058	<0.005	0.0084	0.4	<0.005	2.2	<0.005
W-1605 ^b	06-SEP-07	TO15DI	0.0069	0.17	<0.005	0.15	0.11	<0.005	0.036	0.1	<0.005	0.85	<0.005
W-1608 ^b	06-SEP-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0061	<0.005
W-2211 ^b	30-JUN-10	TO15DIT	0.012	0.58	0.02	0.068	0.3	<0.005	0.053	0.22	<0.005	1.6	<0.005
W-2212 ^b	30-JUN-10	TO15DIT	0.048	0.73	0.031	0.033	0.94	<0.005	0.18	0.42	<0.005	3	<0.005
W-2302 ^b	01-JUL-10	TO15DIT	0.041	0.54	0.02	0.015	0.79	<0.011	0.12	0.61	<0.011	8.6	<0.011
W-2303 ^b	01-JUL-10	TO15DIT	0.0078	0.72	0.032	0.065	0.27	<0.005	0.02	0.35	<0.005	2.3	<0.005
SVI-ETS-504 ^b	29-JUN-10	TO15DIT	<0.005	0.29	0.0088	<0.005	0.092	<0.005	<0.005	0.083	<0.005	0.39	<0.005

Notes on following page.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

^a VTFD-HS did not operate during reporting period due to dual extraction well ground water pump failure.

^b Most recent VOC vapor sample results available.

^c VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CCl₄ = Carbon tetrachloride

CHCl₃ = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFB	TFB-E002	05-APR-11	0.017	NA
	TFB-E002	02-MAY-11	0.02	NA
	TFB-E002	01-JUN-11	0.02	NA
TFC	TFC-E003	05-APR-11	0.018	NA
	TFC-E003	03-MAY-11	0.022	NA
	TFC-E003	02-JUN-11	0.021	NA
TFC-E	MTU1-E	20-APR-11	0.0012	NA
	MTU1-E	04-MAY-11	<0.001	NA
	MTU1-E	01-JUN-11	<0.001	NA
TFC-SE	PTU1-E	04-APR-11	0.029	NA
	PTU1-E	03-MAY-11	0.032	NA
	PTU1-E	02-JUN-11	0.03	NA

^aA discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFA-W-I is an influent sampling port prior to the sediment bag filter immediately following W-404.

TFA-W-E is an effluent sampling port immediately following the sediment bag filter; the water is then discharged to the Livermore Water Reclamation Plant (LWRP).

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

Explanation of Abbreviations

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

Attachment B

Self-Monitoring Reports

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	

Total monthly time facility operated (hours): **706**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-05-2011**

Influent pH: **7.0**

Effluent pH: **7.5**

Effluent Temperature (°C): **18.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	711,200	17.1
W-262	400	0.0
W-408	1,208,800	29.2
W-415	1,467,900	35.6
W-457	501,600	12.3
W-518	178,500	4.3
W-522	572,400	13.5
W-605	365,900	8.8
W-614	396,400	9.6
W-712	294,000	7.1
W-714	320,500	7.4
W-903	1,277,900	29.9
W-904	0	0.0
W-1001	133,400	3.3
W-1004	478,900	11.6
W-1009	1,007,400	24.0
<hr/>		
Total:	<u>8,915,200</u>	<u>213.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,615,100</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

4,300,100

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-29-2011

Self-Monitoring Report LLNL Treatment Facility A (TFA) AREA TFA

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																					
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>						

Total monthly time facility operated (hours): 758

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-02-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	713,900	17.1
W-262	0	0.0
W-408	1,194,700	29.2
W-415	1,623,700	36.4
W-457	478,400	11.9
W-518	190,700	4.3
W-522	657,900	14.1
W-605	386,200	8.7
W-614	399,100	9.3
W-712	306,200	7.0
W-714	367,500	8.2
W-903	1,276,500	29.8
W-904	1,277,900	42.0
W-1001	128,700	2.9
W-1004	506,500	11.4
W-1009	1,074,100	24.1
Total:	<u>10,582,000</u>	<u>256.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>5,618,200</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

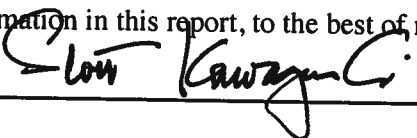
TFG-ASW

4,963,800

6. Comments:

System down on 5-5-11 due to power surge. Restarted on 5-6-11. W-904 started on 5-10-11.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-31-2011

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 726

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-01-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	662,300	15.3
W-262	0	0.0
W-408	1,097,000	25.4
W-415	1,456,000	35.1
W-457	464,600	10.3
W-518	190,100	4.2
W-522	715,200	14.8
W-605	368,800	8.5
W-614	356,600	8.8
W-712	289,300	6.7
W-714	355,100	8.3
W-903	1,160,700	26.7
W-904	1,747,400	42.2
W-1001	122,800	2.8
W-1004	481,700	11.4
W-1009	1,025,900	23.8
Total:	<u>10,493,500</u>	<u>244.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,890,700</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

5,602,800

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-30-2011

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 552

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-04-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.6

4. Wellfield Data:

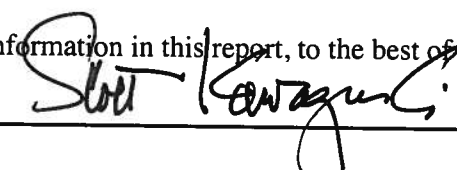
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	43,733	1.3
Total:	<u>43,733</u>	<u>1.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>43,733</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-29-2011

Operator Signature: [Signature] Date: **05-31-2011**

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 612

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-01-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 17.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	44,764	1.3
Total:	<u>44,764</u>	<u>1.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>44,764</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 06-30-2011

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **704**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-05-2011**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **20.3**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	238,900	5.7
W-610	251,700	6.1
W-620	182,600	4.3
W-621	319,600	7.4
W-655	315,200	7.6
W-704	763,000	18.3
W-1423	199,900	4.8
Total:	<u>2,270,900</u>	<u>54.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,270,900</u>

6. Comments:

Hexavalent chromium treatment secured on 4-1-11. End of wet season.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-29-2011**

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month April Year 2011

2. Date compliance sampling performed 04-05-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>15.2</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>4/ SE</u>

4. Receiving Data:

Sample Location	pH	Temperature (C)
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Karaguzi Date: 04-29-2011

Operator Signature: [Signature] Date: 05-31-2011

Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel

1. Reporting Period: Business Month May Year 2011

2. Date compliance sampling performed 05-02-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>14</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-10-2011

Self-Monitoring Report

LLNL Treatment Facility B (TFB)

AREA TFB

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 668

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-01-2011
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 20

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	226,500	5.6
W-610	232,900	6.2
W-620	168,800	4.5
W-621	261,300	6.6
W-655	275,700	7.2
W-704	725,500	18.4
W-1423	188,500	4.8
Total:	<u>2,079,200</u>	<u>53.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,079,200</u>

6. Comments:

System down on 6-10-11 due to high air stripper level fault. Restarted on 6-13-11.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 06-30-2011

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month June Year 2011

2. Date compliance sampling performed 06-01-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>12.38</u>
6-day total precipitation (in):	<u>0.09</u>
Average wind speed/direction (mph):	<u>7/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2011

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **674**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-05-2011**

Influent pH: **7.0**

Effluent pH: **7.5**

Effluent Temperature (°C): **19.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	532,336	13.3
W-1015	190,364	4.9
W-1102	140,459	3.6
W-1103	102,452	2.6
W-1104	1,087,328	27.7
W-1116	67,449	1.8
Total:	<u>2,120,388</u>	<u>53.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,120,388</u>

6. Comments:

Hexavalent chromium treatment secured on 4-1-11. End of wet season. System down on 4-10-11 due to high air stripper level. Restarted on 4-11-11. System down on 4-12-11 due to high air stripper level. Restarted on 4-13-11.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-29-2011**

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month April Year 2011

2. Date compliance sampling performed 04-05-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>15.2</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>4/ SE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-29-2011

Operator Signature: [Signature] Date: 05-31-2011

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month May Year 2011

2. Date compliance sampling performed 05-03-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.6</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawazu Date: 06-10-2011

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 730

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-02-2011

Influent pH: 7.0

Effluent pH: 7.5

Effluent Temperature (°C): 19

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	587,808	13.6
W-1015	196,554	4.6
W-1102	157,445	3.5
W-1103	110,671	2.2
W-1104	1,081,296	27.1
W-1116	72,105	1.7
Total:	<u>2,205,879</u>	<u>52.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,205,879</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 06-30-2011

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month June Year 2011

2. Date compliance sampling performed 06-02-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>12.33</u>
6-day total precipitation (in):	<u>0.09</u>
Average wind speed/direction (mph):	<u>7/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>		

Total monthly time facility operated (hours): 236

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>04-20-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	63,891	4.5
W-413	228,309	16.0
Total:	<u>292,200</u>	<u>20.5</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>292,200</u>

6. Comments:

Facility was down waiting for resin order.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-29-2011**

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>29</u>	<u>30</u>																								
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>										

Total monthly time facility operated (hours): 776

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-04-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	209,520	4.5
W-413	740,304	15.9
Total:	<u>949,824</u>	<u>20.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>949,824</u>

6. Comments:

Facility was down on 5-1 due to air stripper high level.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-31-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 677

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-01-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.4

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	182,022	4.5
W-413	633,750	15.4
Total:	<u>815,772</u>	<u>19.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>815,772</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **706**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-04-2011**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **20.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	311,563	7.5
W-2201	514,486	12.3
Total:	<u>826,049</u>	<u>19.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>826,049</u>

6. Comments:

Hexavalent chromium treatment secured on 4-1-11. End of wet season.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-29-2011**

Operator Signature: [Signature] Date: **05-31-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 730

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-02-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	321,490	7.5
W-2201	530,957	12.3
Total:	<u>852,447</u>	<u>19.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>852,447</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kargan Date: 06-30-2011

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **704**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-04-2011**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **20.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	47,900	1.1
W-653	0	0.0
W-906	167,200	4.0
W-907-2	0	0.0
W-2011	0	0.0
W-2101	14,800	0.4
W-2102	0	0.0
W-1206	163,900	4.0
W-1208	935,400	22.3
Total:	<u>1,329,200</u>	<u>31.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,329,200</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature:  Date: 04-29-2011

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	

Total monthly time facility operated (hours): 775

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-03-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	54,500	1.2
W-653	0	0.0
W-906	188,600	4.1
W-907-2	0	0.0
W-2011	0	0.0
W-2101	15,100	0.3
W-2102	0	0.0
W-1206	182,400	3.9
W-1208	1,032,900	22.4
Total:	<u>1,473,500</u>	<u>31.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,473,500</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: _____

Steve Kawaguchi

Date: 05-31-2011

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): **695**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-02-2011**

Influent pH: **7.0**

Effluent pH: **7.5**

Effluent Temperature (°C): **20.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	50,100	1.2
W-653	0	0.0
W-906	168,800	4.1
W-907-2	0	0.0
W-2011	0	0.0
W-2101	11,500	0.3
W-2102	0	0.0
W-1206	175,100	4.0
W-1208	929,900	22.4
 Total:	<hr/> <u>1,335,400</u>	<hr/> <u>32.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,335,400</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

W-2101 secured on 6-27-11 due to pump failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: Steve Kuznetsov Date: 06-30-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 671

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-05-2011

Influent pH: 7.0

Effluent pH: 7.5

Effluent Temperature (°C): 19.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	0	0.0
W-1253	0	0.0
W-1255	0	0.0
W-1301	40,573	0.9
W-1303	93,109	2.1
W-1306	12,385	0.3
W-1307	245,374	6.1
W-1404	0	0.0
W-1550	0	0.0
W-2203	24,098	0.5
Total:	<u>415,539</u>	<u>9.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>415,539</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-28-2011

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>29</u>	<u>30</u>																													
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 786

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-04-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	0	0.0
W-1253	0	0.0
W-1301	47,781	0.9
W-1306	3,479	0.2
W-1307	287,777	6.1
W-1404	0	0.0
W-2203	25,594	0.5
W-1550	0	0.0
W-1255	0	0.0
W-1303	104,316	2.0
Total:	<u>468,947</u>	<u>9.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>468,947</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

Operator Signature:  Date: 05-31-2011

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 690

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-01-2011
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	0	0.0
W-1253	0	0.0
W-1255	0	0.0
W-1301	40,405	0.9
W-1303	81,323	1.9
W-1306	0	0.0
W-1307	227,980	6.1
W-1404	0	0.0
W-1550	0	0.0
W-2203	19,385	0.5
Total:	<u>369,093</u>	<u>9.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>369,093</u>

6. Comments:

Facility went down for part of the day on 6/14, 6/15, and 6/22 due to snap I/O fault caused by high heat. Facility was down on 6/26 due to air stripper high level.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

Operator Signature:  Date: **06-30-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	0	0.0
W-1551	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

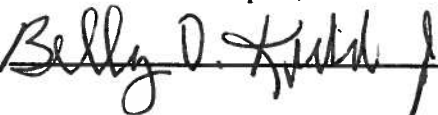
<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

The facility remained off during the month so as not to interfere with the bioremediation treatability test underway at this location.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

 Date: 05-04-2011

**Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD**

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	30																
May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	0	0.0
W-1551	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

The facility remained off during the month so as not to interfere with the bioremediation treatability test underway at this location.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kurlin Date: 06-03-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	28	29	30	31															
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	0	0.0
W-1551	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

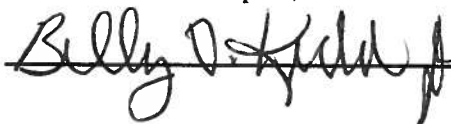
<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

The facility remained off during the month so as not to interfere with the bioremediation treatability test underway at this location.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:



Date: 07-11-2011

**Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD**

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 696

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	16,021	0.4
W-1653	15,377	0.3
W-1655	10,143	0.2
W-1657	3,923	0.1
Total:	<u>45,464</u>	<u>1.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>45,464</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but is was not treated.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy J. Kinkel Date: 05-04-2011

**Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD**

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																		
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>							

Total monthly time facility operated (hours): 626

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	13,365	0.1
W-1653	12,772	0.1
W-1655	8,222	0.1
W-1657	3,442	0.1
Total:	<u>37,801</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>37,801</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but it was not treated. The facility shut down several times due to a high water level reading in W-1552. The recorded flow rate readings were taken when the facility was running in the lactate injection mode.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy J. Kutil Date: 06-03-2011

**Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD**

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	28	29	30	31																
June	<u>01</u>	<u>02</u>	<u>03</u>	04	05	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	12	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	18	19	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	25	26	27	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 316

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	3,603	0.2
W-1653	3,087	0.2
W-1655	2,993	0.1
W-1657	2,064	0.2
Total:	<u>11,747</u>	<u>0.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>11,747</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but it was not treated. The facility shut down several times due to a high water level reading in W-1552. The recorded flow rate readings were taken when the facility was running in the lactate injection mode:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kild Date: 07-11-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 702

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-21-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	741,544	17.6
W-1504	331,372	7.8
W-1510	79,485	5.1
Total:	<u>1,152,401</u>	<u>30.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,152,401</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-03-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																														
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 772

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-09-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	577,368	9.8
W-1504	363,436	8.0
W-1510	160,243	5.1
Total:	<u>1,101,047</u>	<u>22.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,101,047</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2011

Self-Monitoring Report

LLNL Portable Treatment Unit 2 (PTU2)

AREA TFD-S

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 716

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-16-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	440,800	10.5
W-1504	338,660	7.9
W-1510	191,172	4.5
Total:	<u>970,632</u>	<u>22.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>970,632</u>

6. Comments:

Due to W-1510 PLC flow volume accumulator problems, W-1510 total volume is estimated (4.45 GPM * 42960 minutes).

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-19-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **661**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-05-2011**

Influent pH: **7.0**

Effluent pH: **7.0**

Effluent Temperature (°C): **21.4**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	406,058	9.6
W-2005	6,569	0.5
W-1308	60,732	3.0
W-1403	64,641	1.6
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>538,000</u>	<u>14.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>538,000</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-28-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>29</u>	<u>30</u>																								
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>										

Total monthly time facility operated (hours): 799

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-11-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.9</u>

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	492,848	10.5
W-2005	3,187	0.6
W-1308	146,904	3.0
W-1904	0	0.0
W-1403	73,180	1.2
SIP-ETC-201	0	0.0
Total:	<u>716,119</u>	<u>15.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>716,119</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-31-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 648

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-01-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	292,131	10.5
W-2005	1,178	0.0
W-1308	106,646	3.0
W-1403	43,954	1.2
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>443,909</u>	<u>14.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>443,909</u>

6. Comments:

Facility was down due to bad discharge pump. Pump was removed and replaced.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **704**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-12-2011**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **21.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	295,536	7.1
W-1601	42,472	1.0
W-1602	227,395	5.4
W-1603	591,506	14.1
Total:	<u>1,156,909</u>	<u>27.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,156,909</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-03-2011**

Operator Signature: [Signature] Date: **06-01-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 724

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-16-2011

Influent pH: 7.0

Effluent pH: 7.0

Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	295,905	6.9
W-1601	45,482	1.1
W-1602	198,191	4.5
W-1603	563,710	13.0
Total:	<u>1,103,288</u>	<u>25.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,103,288</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 704

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-13-2011
Influent pH: 7.4
Effluent pH: 7.5
Effluent Temperature (°C): 18.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	411,279	9.8
W-1216	425,408	10.2
W-1902	760,759	18.1
Total:	<u>1,597,446</u>	<u>38.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,597,446</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kishel Date: 05-04-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>														
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>			

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-10-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.7</u>
Effluent Temperature (°C):	<u>23.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	394,077	9.8
W-1216	409,412	10.4
W-1902	730,792	18.1
Total:	<u>1,534,281</u>	<u>38.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,534,281</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kish Date: 06-03-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 823

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.6</u>
Effluent Temperature (°C):	<u>23.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	476,905	9.7
W-1216	499,015	10.1
W-1902	889,036	18.2
Total:	<u>1,864,956</u>	<u>38.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,864,956</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kurland Date: 07-11-2011

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	702
W-ETC-2003	728,487	17.5	-2.76	69	702
SIP-ETC-201	0	0.0	0	0	702
W-ETC-2004A	390,301	9.2	-7.03	69	702
W-ETC-2004B	765,047	16.5	-8.71	69	702
Total:	<u>1,883,835</u>	<u>43.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-29-2011

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	<u>30</u>																								
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>										
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>									

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	780
W-ETC-2003	696,578	18.2	-1.52	70	780
W-ETC-2004A	329,337	8.9	-7.1	70	780
W-ETC-2004B	749,907	19.8	-5.46	70	780
SIP-ETC-201	0	0.0	0	0	780
Total:					
	<u>1,775,822</u>	<u>46.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2011

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	84	0.0	-.8	85	0
W-ETC-2003	555,068	12.4	-.91	85	717
W-ETC-2004A	244,925	4.8	-5.5	85	717
W-ETC-2004B	578,005	12.6	-2.62	85	717
SIP-ETC-201	22	0.0	-.12	85	0
Total:	<u>1,378,104</u>	<u>29.8</u>			

4. Comments:

Vapor samples collected from SIP-ETC-201 and W-1904 6/15/11. Well field flow rates adjusted 6/15/11 to increase system performance and minimize loss of operating liquid.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-11-2011

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

March	31														
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

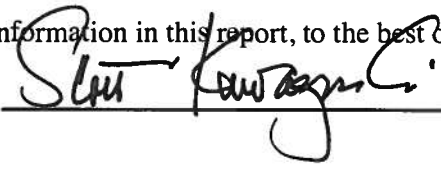
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-29-2011

Operator Signature: _____ Date: 05-31-2011

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-29-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): 707

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-12-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	345,159	8.2
W-1109	82,660	2.0
W-1903	45,917	1.1
W-1909	0	0.0
W-2305	313	0.7
Total:	<u>474,049</u>	<u>12.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>474,049</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-03-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 30
May 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 05-05-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	329,891	8.2
W-1109	69,675	1.7
W-1903	33,513	0.8
W-1909	0	0.0
W-2305	2,498	0.8
Total:	<u>435,577</u>	<u>11.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>435,577</u>

6. Comments:

System secure from 5/23/11 to 5/27/11 for electrical work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	01	02	03	04	05	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 580

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-13-2011

Influent pH: 7.0

Effluent pH: 7.0

Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	278,099	8.1
W-1109	57,693	1.7
W-1903	41,482	1.2
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>377,274</u>	<u>11.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>377,274</u>

6. Comments:

System secure from 5/31/11 to 6/6/11 for equipment testing on W-1903 and W-2305.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **694**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-12-2011**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **18.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2012	0	0.0
W-2105	473	0.0
Total:	<u>473</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>473</u>

6. Comments:

Facility operations with W-2012 have been discontinued. W-2105 operates cyclically thus flow rate, flow volume and hours of operation do not correlate.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-03-2011**

Operator Signature: [Signature] Date: **06-01-2011**

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): **579**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **06-13-2011**

Influent pH: **7.0**

Effluent pH: **7.0**

Effluent Temperature (°C): **24.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	124	0.0
Total:	<u>124</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>124</u>

6. Comments:

Extraction well W-2012 was damaged beyond repair during implementation of the pneumatic fracturing treatability test at the TFE Hotspot source area. Accordingly, it has been removed from this SMR. W-2105 operates cyclically thus flow rate, flow volume and hours of operation do not correlate.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____

Date: **08-10-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 706

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-12-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	280,895	6.7
W-1409	123,872	2.9
Total:	<u>404,767</u>	<u>9.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>404,767</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-03-2011

Self-Monitoring Report

LLNL Portable Treatment Unit 9 (PTU9)

AREA TFE-NW

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																					
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>						

Total monthly time facility operated (hours): 780

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-09-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	310,634	6.7
W-1409	124,803	2.8
 Total:	<hr/> <u>435,437</u>	<hr/> <u>9.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>435,437</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 727

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-16-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	215,881	0.0
W-1409	96,549	2.2
Total:	<u>312,430</u>	<u>2.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>312,430</u>

6. Comments:

W-1211 secure from 6/16/11 to 6/23/11 for equipment repairs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **694**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-05-2011**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **21.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	343,488	8.2
Total:	<u>343,488</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>343,488</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **04-29-2011**

Operator Signature: Sam Thomas Date: **06-01-2011**

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 716

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-01-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	353,537	8.2
Total:	<u>353,537</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>353,537</u>

6. Comments:

7. I certify that the information in this report to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **693**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-13-2011**
Influent pH: **7.4**
Effluent pH: **7.5**
Effluent Temperature (°C): **14**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	72,011	1.7
W-1520	25	1.2
W-1522	42	1.7
Total:	<u>72,078</u>	<u>4.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>72,078</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy D. Kunkel* Date: **05-04-2011**

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																		
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>							

Total monthly time facility operated (hours): 668

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-10-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	61,225	1.5
W-1520	0	0.0
W-1522	0	0.0
Total:	<u>61,225</u>	<u>1.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>61,225</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 06-03-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>					

Total monthly time facility operated (hours): 789

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	72,791	1.5
W-1520	0	0.0
W-1522	0	0.0
Total:	<u>72,791</u>	<u>1.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>72,791</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Kuchin Date: 07-11-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 685

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-13-2011
Influent pH: 7.4
Effluent pH: 7.5
Effluent Temperature (°C): 18.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	234,075	5.7
W-305	357,317	8.7
Total:	<u>591,392</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>591,392</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy J. Field Date: 05-04-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>					

Total monthly time facility operated (hours): 667

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-10-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	229,308	5.7
W-305	348,822	8.7
Total:	<u>578,130</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>578,130</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fisher Date: 06-03-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>					

Total monthly time facility operated (hours): 761

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	263,865	5.8
W-305	399,412	8.5
Total:	<u>663,277</u>	<u>14.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>663,277</u>

6. Comments:

The facility shut down several times due to air stripper high water level.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 07-11-2011

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFF-ELM

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	99,332	2.2	-10.8	58	695
W-1909	0	0.0	0	0	0
W-2305	6	0.0	0	0	5
W-543-001	0	0.0	0	0	0
W-543-003	963,297	23.1	-1.5	0	695
W-543-1908	0	0.0	0	0	0
Total:	<u>1,062,635</u>	<u>25.3</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-02-2011

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	<u>30</u>																													
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>														

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	93,758	2.6	-10.77	68	536
W-1909	176	0.0	0	0	0
W-2305	15	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	702,843	23.5	-1.5	68	536
W-543-1908	0	0.0	0	0	0
Total:					
	<u>796,792</u>	<u>26.0</u>			

4. Comments:

Facility operating in test and verification mode 4/30 to 5/11/11. Thermal Enhanced Remediation mode 1 operations commenced 5/12/11, extracting soil vapor from W-1903 and W-543-001, injecting into W-2305 and W-1909. Facility secured 5/23/11 for software/electronics upgrades.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June	01	02	03	04	05	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	93,508	2.7	-16.28	70	575
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	70	0
W-543-001	0	0.0	0	0	0
W-543-003	650,531	16.7	-1	70	575
W-543-1908	0	0.0	0	0	0
Total:	<u>744,039</u>	<u>19.4</u>			

4. Comments:

Facility offline 6/1 to 6/6 for electrical upgrades.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-11-2011

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFF-HS

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	47,906	1.1	-2.16	60	705
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	225,147	4.7	-2.16	60	705
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	780,507	18.4	-1.92	60	705
Total:	<u>1,053,560</u>	<u>24.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-02-2011**

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFF-HS

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	<u>30</u>																												
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>														
	<u>16</u>	17	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	30	<u>31</u>													

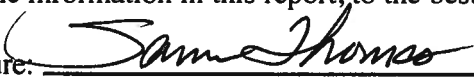
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	53,739	1.1	-2.4	58	704
W-ETS-2008A	48	0.0	0	0	0
W-ETS-2008B	236,308	5.8	-2.35	58	704
W-ETS-2009	489	0.0	0	0	0
W-ETS-2010A	576	0.0	0	0	0
W-ETS-2010B	758,461	19.1	-2.12	58	704
Total:					
	<u>1,049,621</u>	<u>26.0</u>			

4. Comments:

Secured facility 5/16 @ 14:55 hrs. to collect baseline vapor and groundwater samples from new monitor wells and idle extraction wells. Facility was restarted 5/18 @ 11:05. Facility shutdown 5/29/11 due to high condensate collection tank alarm. Facility was restarted 5/31 @ 08:10 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 17 18 19 20 21 22 23 24 25 26 27 28 29 **30**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	28,698	1.7	-1.92	60	390
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	136,438	6.2	-1.87	60	390
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	454,216	13.9	-1.65	60	390
Total:	<u>619,352</u>	<u>21.8</u>			

4. Comments:

Facility operations secured 6/16 in preparation for the TFE-HS post mechanical fracturing 90 day test. Facility operations resumed 6/30/11.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-11-2011**

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **693**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-20-2011**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **21**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	366,273	8.8
Total:	<u>366,273</u>	<u>8.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>366,273</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-03-2011**

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month April Year 2011

2. Date compliance sampling performed 04-20-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.2</u>
6-day total precipitation (in):	<u>0.02</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

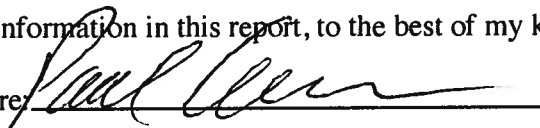
5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature



Date: 05-03-2011

Operator Signature: [Signature] Date: **06-01-2011**

Land Observation Report date:
TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month May Year 2011

2. Date compliance sampling performed 05-10-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.1</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2011

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 713

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-13-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	<u>376,356</u>	<u>8.7</u>
Total:	<u>376,356</u>	<u>8.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>376,356</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month June Year 2011

2. Date compliance sampling performed 06-13-2011

3. Weather Conditions:

Average air tempertaure (°C):	<u>15.53</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature  Date: 08-02-2011

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 548

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-20-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	89,475	2.8
W-1807	133,684	4.2
Total:	<u>223,159</u>	<u>7.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>223,159</u>

6. Comments:

System secure from 4/13/11 to 4/18/11 for discharge pump repairs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-06-2011

Self-Monitoring Report

LLNL Mini Treatment Unit 02 (MTU02)

AREA TFG-N

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																								
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>										
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>									

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-10-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	132,629	2.8
W-1807	203,482	4.4
 Total:	<u>336,111</u>	<u>7.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>336,111</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 723

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-13-2011</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	122,982	2.9
W-1807	195,803	4.5
Total:	<u>318,785</u>	<u>7.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>318,785</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): 701

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **04-15-2011**
Influent pH: **7.5**
Effluent pH: **7.5**
Effluent Temperature (°C): **22.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	106	4.3
W-1310	607,036	14.6
Total:	<u>607,142</u>	<u>18.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>607,142</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-04-2011**

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>					

Total monthly time facility operated (hours): 680

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-10-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	576,710	14.5
Total:	<u>576,710</u>	<u>14.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>576,710</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fickel Date: 06-03-2011

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>													
June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	08	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 779

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-07-2011</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	617,957	13.3
Total:	<u>617,957</u>	<u>13.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>617,957</u>

6. Comments:

The facility shut down due to air stripper high water level.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 07-11-2011

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 426

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-20-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 23.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	106,027	4.1
Total:	<u>106,027</u>	<u>4.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>106,027</u>

6. Comments:

Facility hours of operation include 1 hour from W-1801 redevelopment. Monthly volume for W-1801 includes 567 gallons of water removed from W-1801 and treated elsewhere.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-03-2011

Operator Signature: [Signature] Date: **06-01-2011**

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 713

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-16-2011
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 23.2

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	172,329	4.0
Total:	<u>172,329</u>	<u>4.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>172,329</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

March	31																		
April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Stan Kragan Date: 04-29-2011

Date: **05-31-2011**

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

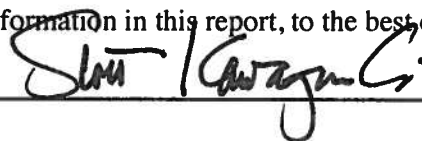
<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____



Date: 06-29-2011

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **693**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	135	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	123	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>258</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>258</u>

6. Comments:

Transferred 383 gallons of groundwater to TFB main for treatment.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas

Date: **04-29-2011**

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>30</u>																														
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 768

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	110	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	97	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>207</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>207</u>

6. Comments:

Transferred 207 gallons of groundwater to TFB main for treatment 5/16/11.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-01-2011

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	110	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	90	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>200</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>200</u>

6. Comments:

Transferred 200 gallons of groundwater to TFB Main for treatment. Compliance sampling not required, groundwater is treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 06-30-2011

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fisher Date: 05-04-2011

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	30																
May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fisher Date: 06-03-2011

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	28	29	30	31															
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 07-11-2011

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 670

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 04-05-2011

Influent pH: 6.5

Effluent pH: 7.0

Effluent Temperature (°C): 19.2

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	192,960	4.9
W-1415	0	0.0
Total:	<u>192,960</u>	<u>4.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>192,960</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-28-2011

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	<u>29</u>	<u>30</u>																								
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	29	30	<u>31</u>										

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>05-02-2011</u>
Influent pH:	<u>6.5</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	222,781	4.8
W-1415	0	0.0
Total:	<u>222,781</u>	<u>4.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>222,781</u>

6. Comments:

Facility was down for Carbon change out on 5-29 and 5-30.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 05-31-2011

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 06-01-2011
Influent pH: 6.5
Effluent pH: 7.0
Effluent Temperature (°C): 23.2

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	263,935	5.9
W-1415	0	0.0
Total:	<u>263,935</u>	<u>5.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>263,935</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-30-2011

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty D. Kuder Date: 05-04-2011

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

April	30																
May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fildes Date: 06-03-2011

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treated ground water was discharged

May	28	29	30	31															
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Kilduff Date: 07-11-2011

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	641,594	18.0	-3.54	64	659
W-514-2007A	96,366	3.0	-4.15	64	659
W-514-2007B	473,040	11.2	-3.58	64	659
Total:	<u>1,211,000</u>	<u>32.2</u>			

4. Comments:

Facility shutdown 4/17/11 due to scheduled power outage, and was restarted 4/18 @ 10:05 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 04-29-2011

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	<u>30</u>																				
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>					

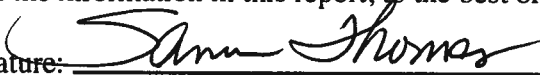
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	761,228	18.1	-3.52	61	772
W-514-2007A	72,290	3.2	-4.13	61	772
W-514-2007B	567,323	10.5	-3.56	61	772
Total:	<u>1,400,841</u>	<u>31.7</u>			

4. Comments:

W-514-2007A soil vapor extraction terminated, vapor control valve closed and well differential pressure transducer disconnected 5/24/11.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 06-01-2011

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	713,404	18.9	-3.43	60	724
W-514-2007A	0	0.0	0	0	0
W-514-2007B	535,056	12.4	-3.97	60	724
Total:	<u>1,248,460</u>	<u>31.3</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-11-2011

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	0	0.0	0	0	0
W-1517	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2208B	285,009	5.4	-4.7	64	694
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	322,527	6.8	-5.4	64	694
W-2208A	0	0.0	0	0	0
Total:	<u>607,536</u>	<u>12.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 04-29-2011

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	<u>30</u>																				
May	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	0	0.0	0	0	0
W-1517	0	0.0	0	0	0
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	344,022	6.7	-4.7	72	766
W-2208A	0	0.0	0	0	0
W-2208B	414,029	8.4	-4.1	72	766
<hr/>					
Total:	<u>758,051</u>	<u>15.1</u>			

4. Comments:

Facility shutdown 5/3/11 at 09:17 hrs. upon discovery of concentrations exceeding BAAQMD permit conditions at the inlet to the last carbon filter. Filters 031 and 032 were removed, 035 and 036 installed. Facility was restarted 5/3/11 at 14:40 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

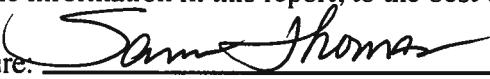
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	13	0.0	0	0	2
W-1517	23	0.0	0	0	2
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	162	0.0	0	0	0
W-2207B	312,254	8.1	-5.2	60	718
W-2208A	207	0.0	0	0	0
W-2208B	371,627	9.1	-4.6	60	718
Total:	<u>684,286</u>	<u>17.2</u>			

4. Comments:

Vapor samples collected 6-15-11 from VTF-511 idle extraction wells W-274, W-1517, W-2207A and W-2208A. Vapor samples collected 6-23/11 from VTF-511/419 idle extraction wells W-2204, W-2205 and W-2206.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-11-2011

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month April Week: 1 Year 2011

2. Dates (in **bold** and underline) treatment facility operated

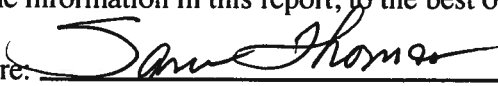
March **26 27 28 29 30 31**
April **01**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,802	3.8	-16	52	166
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	4,974	0.5	-23	52	166
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>42,776</u>	<u>4.3</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-02-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month April **Week: 2** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated

April **02** **03** **04** **05** **06** **07** **08**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	36,914	3.6	-16	60	171
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,127	0.5	-23	60	171
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>42,041</u>	<u>4.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **05-02-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month April **Week: 3** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated

April **09** **10** **11** **12** **13** **14** **15**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	41,605	4.2	-15.2	45	165
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	3,962	0.4	-22.8	45	165
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>45,567</u>	<u>4.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-29-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month April **Week: 4** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated


April **16** **17** **18** **19** **20** **21** **22**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	32,294	3.2	-18	48	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,046	0.5	-23	48	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>37,340</u>	<u>3.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-29-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month April Week: **5** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated

April **23** **24** **25** **26** **27** **28** **29**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	40,200	4.0	-16	44	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,025	0.5	-23	44	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>45,225</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **05-02-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month May **Week: 1** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated


April **30**
May **01 02 03 04 05 06**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,616	3.9	-15.6	62	169
W-518-1913	0	0.0	0	0	169
W-518-1914	0	0.0	0	0	169
W-518-1915	5,079	0.5	-22.8	62	169
SVB-518-201	0	0.0	0	0	169
SVB-518-204	0	0.0	0	0	169
Total:	<u>44,695</u>	<u>4.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month May **Week: 2** Year 2011

2. Dates (in **bold** and underline) treatment facility operated

May **07** **08** **09** **10** **11** **12** **13**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,096	3.7	-15	49	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,016	0.6	-22.5	49	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>43,112</u>	<u>4.3</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month May **Week: 3** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated

May **14** **15** **16** **17** **18** **19** **20**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,265	3.9	-14.5	50	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,034	0.5	-22.5	50	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>44,299</u>	<u>4.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month May **Week: 4** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated

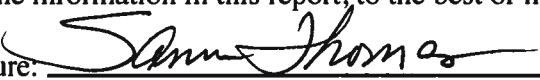
May **21** **22** **23** **24** **25** **26** **27**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	40,008	4.0	-15	52	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,001	0.5	-22.5	52	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>45,009</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **06-01-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month June Week: 1 Year 2011

2. Dates (in **bold** and underline) treatment facility operated

May **28** **29** **30** **31**
June **01** **02** **03**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,827	3.9	-15	53	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,127	0.6	-22.5	53	170
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>45,954</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-08-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month June **Week: 2** Year 2011

2. Dates (in **bold** and underline) treatment facility operated

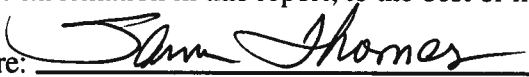
June **04** **05** **06** **07** **08** **09** **10**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	42,462	4.2	-15	62	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,066	0.6	-22.3	62	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>48,528</u>	<u>4.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-08-2011**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month June **Week: 3** Year 2011

2. Dates (in **bold** and underline) treatment facility operated

June **11** **12** **13** **14** **15** **16** **17**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,190	3.8	-15	68	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,030	0.6	-22	60	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>44,220</u>	<u>4.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-08-2011

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month June **Week: 4** Year **2011**

2. Dates (in **bold** and underline) treatment facility operated

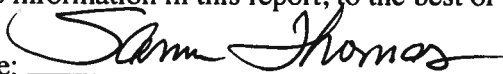
June **18** **19** **20** **21** **22** **23** **24**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	42,185	4.2	-14.5	52	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,026	0.6	-22.3	52	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>48,211</u>	<u>4.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-08-2011**

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month April Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 05-04-2011

Self-Monitoring Report
LLNL Vapor Extraction System 01 (VES01)
AREA VTF5475

1. Reporting Period: Business Month May Year 2011

2. Dates (in **bold** and underline) treatment facility operated

April	30																		
May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27							

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Kilduff Date: 06-03-2011

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month June Year 2011

2. Dates (in **bold** and underline) treatment facility operated

May	28	29	30	31												
June	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kichler Date: 07-11-2011

Attachment C

Lake Haussmann

Attachment C

Lake Haussmann Second Quarter 2011 Monitoring Program Summary

This attachment summarizes the second quarter 2011 LLNL Environmental Functional Area discharge data for Lake Haussmann. Lake Haussmann is an artificial water body that has a 37 acre-ft capacity. It is located in the central portion of the Livermore Site (Fig. C-1) and receives storm water runoff and treated ground water discharges.

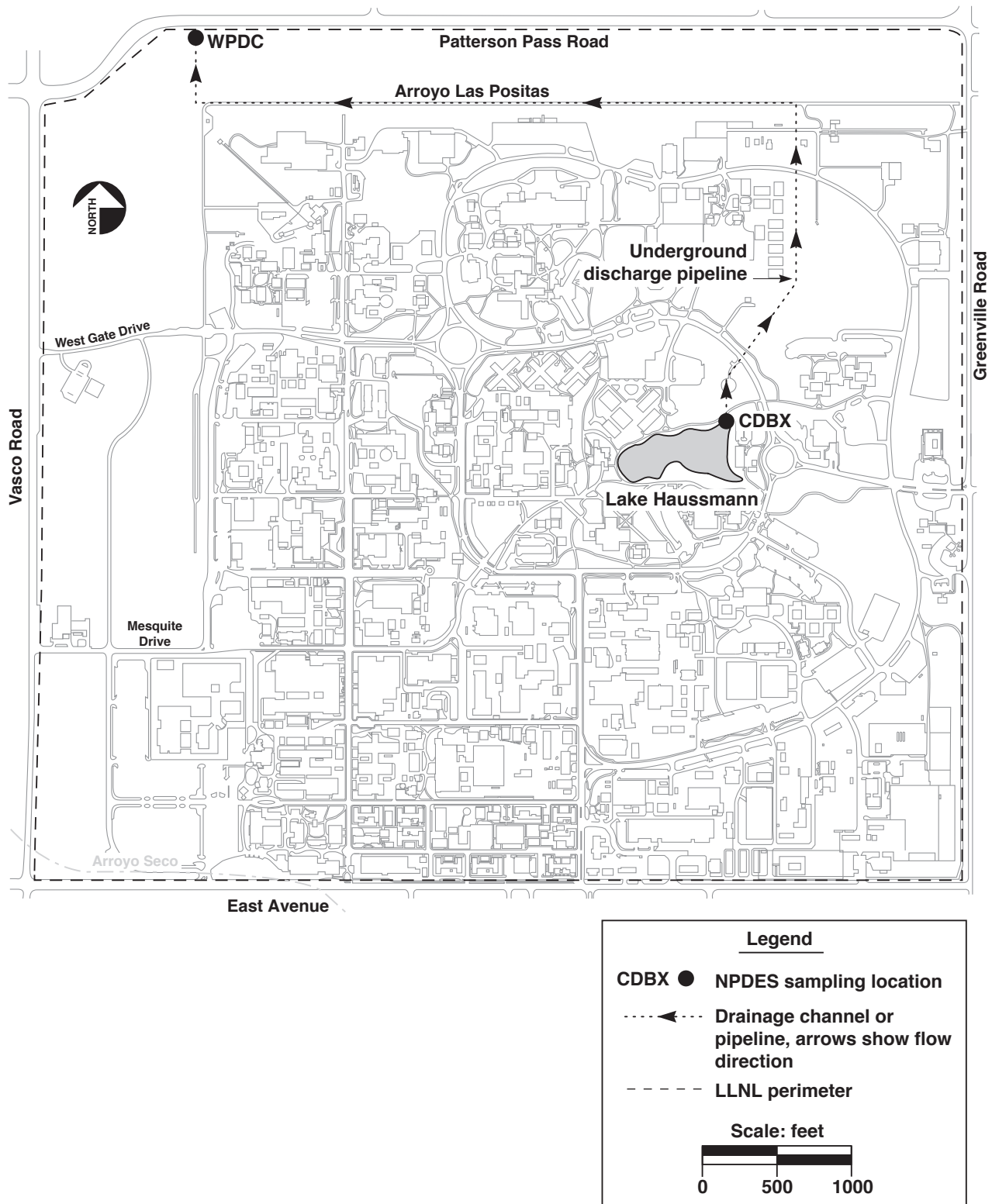
Samples are collected from water discharged from Lake Haussmann and analyzed as outlined in Jackson (2002). The discharge samples are used to determine compliance with discharge limits in the *Record of Decision* (DOE, 1992), and the subsequent *Explanation of Significant Differences for Metals Discharge Limits* (Berg et al., 1997).

Dry season (June, July, August, and September) discharges are sampled at each manual release or monthly during periods of continual release. Wet season (October through May) discharge samples are collected at the first release of the wet season and one other discharge in conjunction with a storm water monitoring event. Analytic results of discharge samples collected at location CDBX are compared with the LLNL Arroyo Las Positas outfall sample results collected at location WPDC (Fig. C-1). The results for samples collected at locations CDBX and WPDC are presented in Table C-1. All PCBs were below detection limits. No metals exceed discharge limits. The pH value at the CDBX exceeded the desired range of 6.5 to 8.5. The pH has averaged 8.8 since 1998 and is typically elevated during summer due to increased photosynthesis. Aquatic bioassay tests showed no toxicity.

Discharge from Lake Haussmann remained continuous during the second quarter except for one week in June. The top weir gate was closed on June 1, 2011 to allow the basin under the dam to dry out to clean the grate. On June 7, 2011 the grate was cleaned, the weir gate was opened, and the first dry season sample was collected. The Lake Haussmann upper weir gate was maintained at the lowered position during all but one week of the second quarter, so that releases occurred continuously to minimize changes in surface water level and allow for a more natural ecosystem.

References

- U.S. Department of Energy, *Record of Decision for the Lawrence Livermore National Laboratory, Livermore Site*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-AR-109105, (1992).
- Berg, L.L., E.N. Folsom, M.D. Dresen, R.W. Bainer, and A.L. Lamarre, Eds., *Explanation of Significant Differences for Metals Discharge Limits at the Lawrence Livermore National Laboratory, Livermore Site*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-AR-125927 (1997).
- Jackson, C.S., *Drainage Retention Basin Monitoring Plan Change*, Letter to Ms. Naomi Feger, San Francisco Bay RWQCB, Lawrence Livermore National Laboratory, Livermore, CA, WGMG02:175:CSJ:RW:kh, (December 6, 2002)



ERD-S3R-08-0041

Figure C-1. Location of Lake Haussmann showing discharge sampling locations.

Table C-1. LLNL Lake Haussman monitoring data for points CDBX and WPDC, April through June 2011.

			CDBX 6/7/11	WPDC 6/7/11	Discharge Limits 1-Apr through 30-Nov	Discharge Limits 1-Dec through 31-Mar
Physical						
pH	Units	EPA-150.1	9.11	8.45	not <6.5 or >8.5	not <6.5 or >8.5
Total suspended solids (TSS)	mg/L	EPA-160.2	< 1.1	12	na	na
Polychlorinated biphenyls						
PCB 1016	ug/L	EPA-8082	< 0.5	a	na	na
PCB 1221	ug/L	EPA-8082	< 0.5	a	na	na
PCB 1232	ug/L	EPA-8082	< 0.5	a	na	na
PCB 1242	ug/L	EPA-8082	< 0.5	a	na	na
PCB 1248	ug/L	EPA-8082	< 0.5	a	na	na
PCB 1254	ug/L	EPA-8082	< 0.5	a	na	na
PCB 1260	ug/L	EPA-8082	< 0.5	a	na	na
Metals - Total						
Antimony	mg/L	EPA-200.8	< 0.005	< 0.005	0.006	na
Arsenic	mg/L	EPA-200.8	< 0.002	< 0.002	0.05	0.01
Beryllium	mg/L	EPA-200.9	< 0.0002	< 0.0002	0.004	na
Boron	mg/L	EPA-200.7	1.3	1.1	na	na
Cadmium	mg/L	EPA-200.8	< 0.0005	< 0.0005	0.005	0.0022
Chromium	mg/L	EPA-200.8	0.0024	0.009	0.05	na
Copper	mg/L	EPA-200.8	< 0.001	0.0013	1.3	0.0236
Hexavalent Chromium	mg/L	EPA-218.6	0.0033	0.0096	na	0.022
Iron	mg/L	EPA-200.7	< 0.1	0.29	na	na
Lead	mg/L	EPA-200.8	< 0.005	< 0.005	0.015	0.0064
Manganese	mg/L	EPA-200.8	< 0.03	< 0.03	na	na
Mercury	mg/L	EPA-245.1	< 0.0002	< 0.0002	0.002	0.002
Nickel	mg/L	EPA-200.8	0.002	0.0021	0.1	0.32
Selenium	mg/L	EPA-200.8	< 0.002	< 0.002	0.05	0.01
Silver	mg/L	EPA-200.8	< 0.001	< 0.001	0.1	0.0082
Thallium	mg/L	EPA-200.8	< 0.001	< 0.001	0.002	na
Zinc	ug/L	EPA-200.7	< 20	< 20	na	0.22
Toxicity						
Aq. Bioassay, Survival	% Survival	EPA-600/4-90/027F	100	100	70	70

a) Sampling for these analytes not required at this location during this period.

Attachment D

Figures

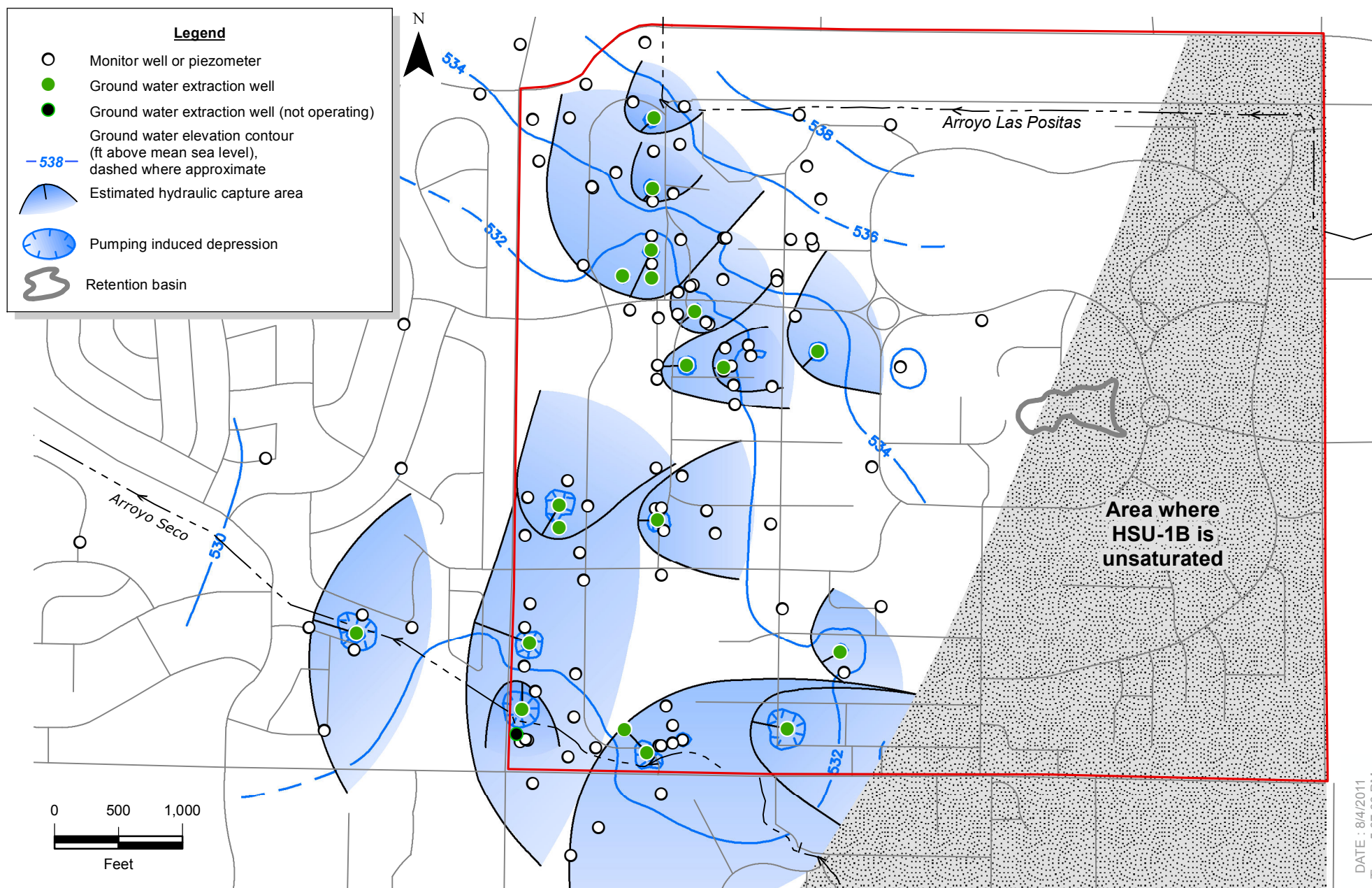


Figure 2. Ground water elevation contour map based on 128 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2011.

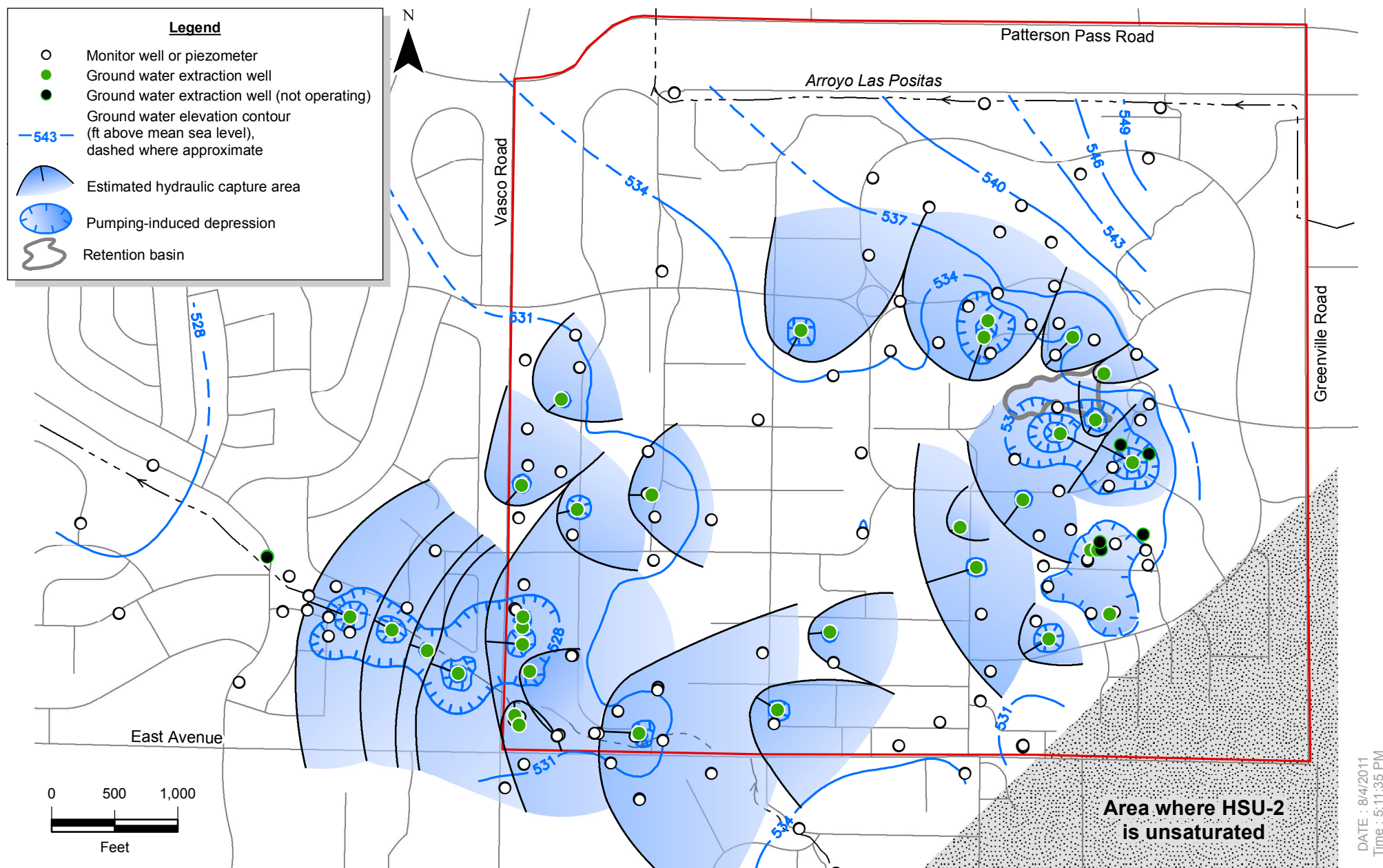


Figure 3. Ground water elevation contour map based on 155 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2011.

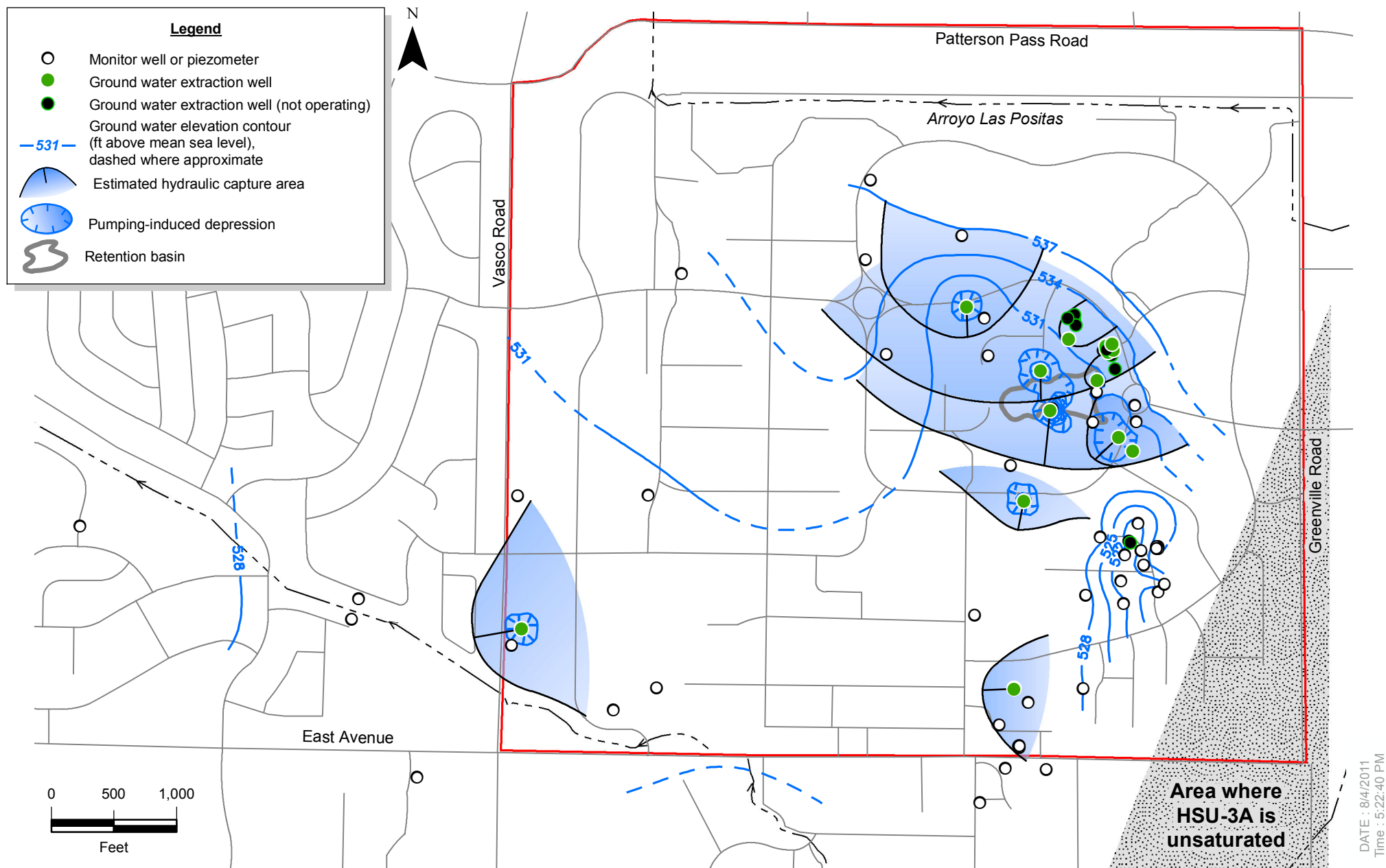


Figure 4. Ground water elevation contour map based on 65 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2011.

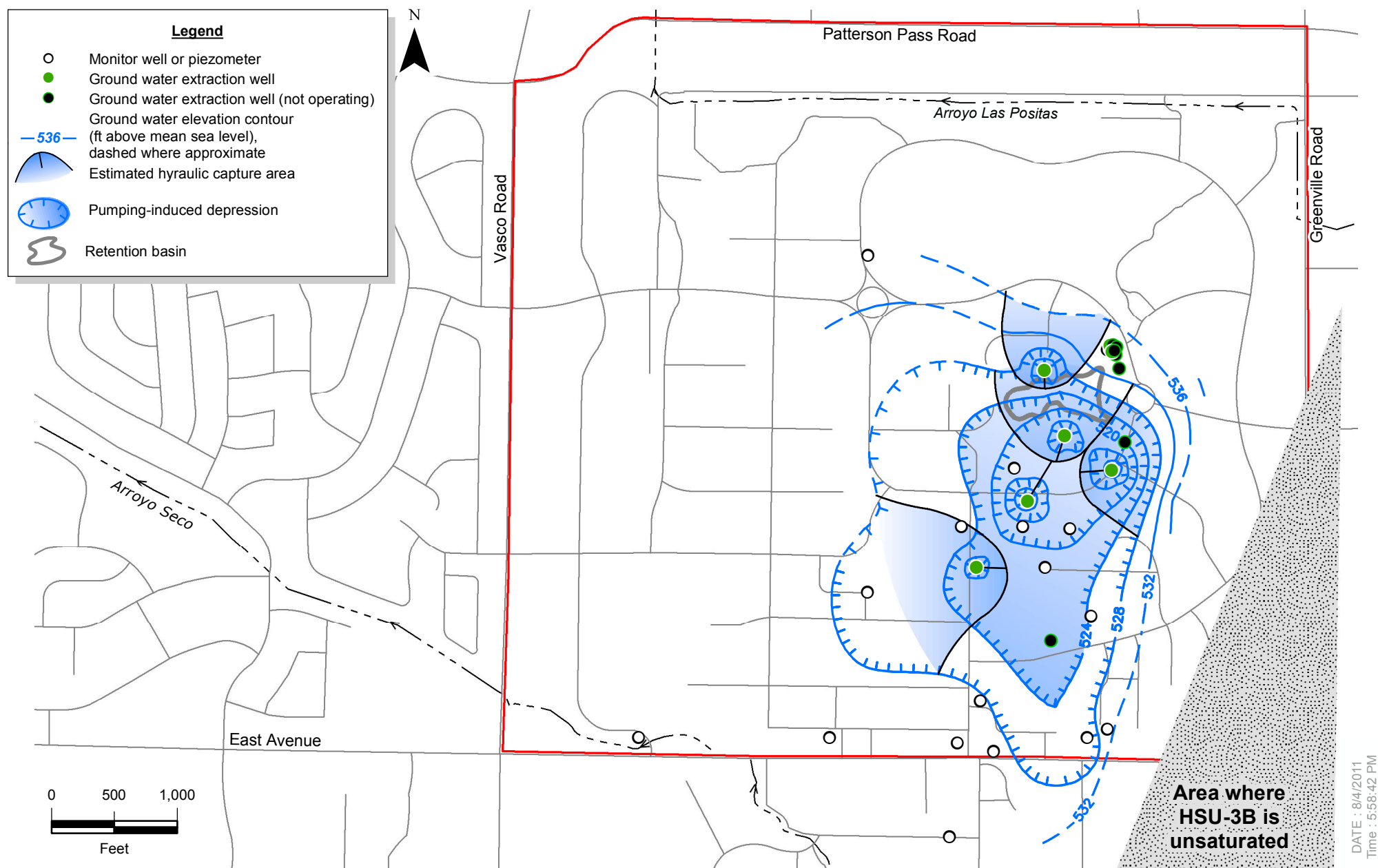


Figure 5. Ground water elevation contour map based on 27 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2011.

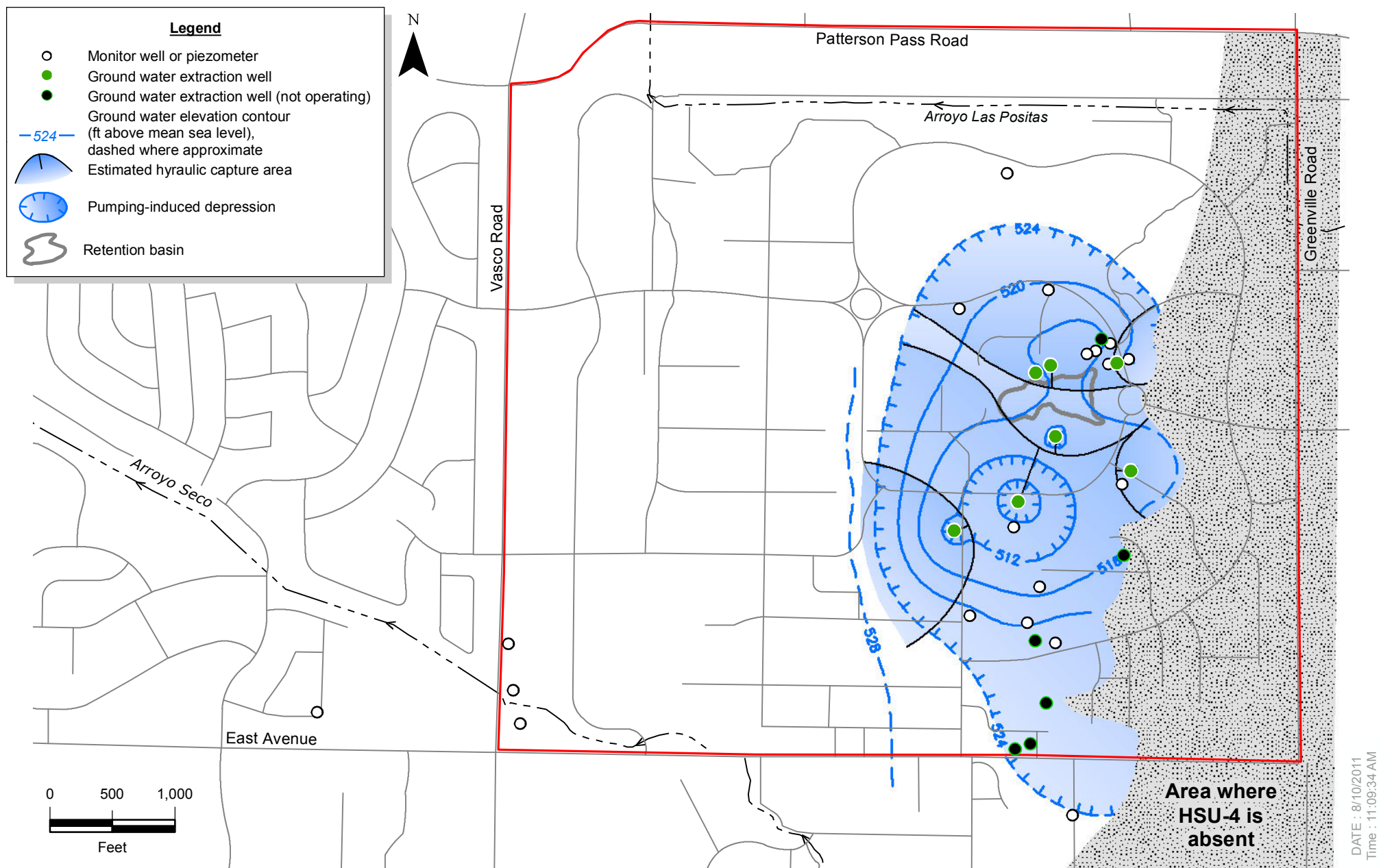


Figure 6. Ground water elevation contour map based on 30 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2011.

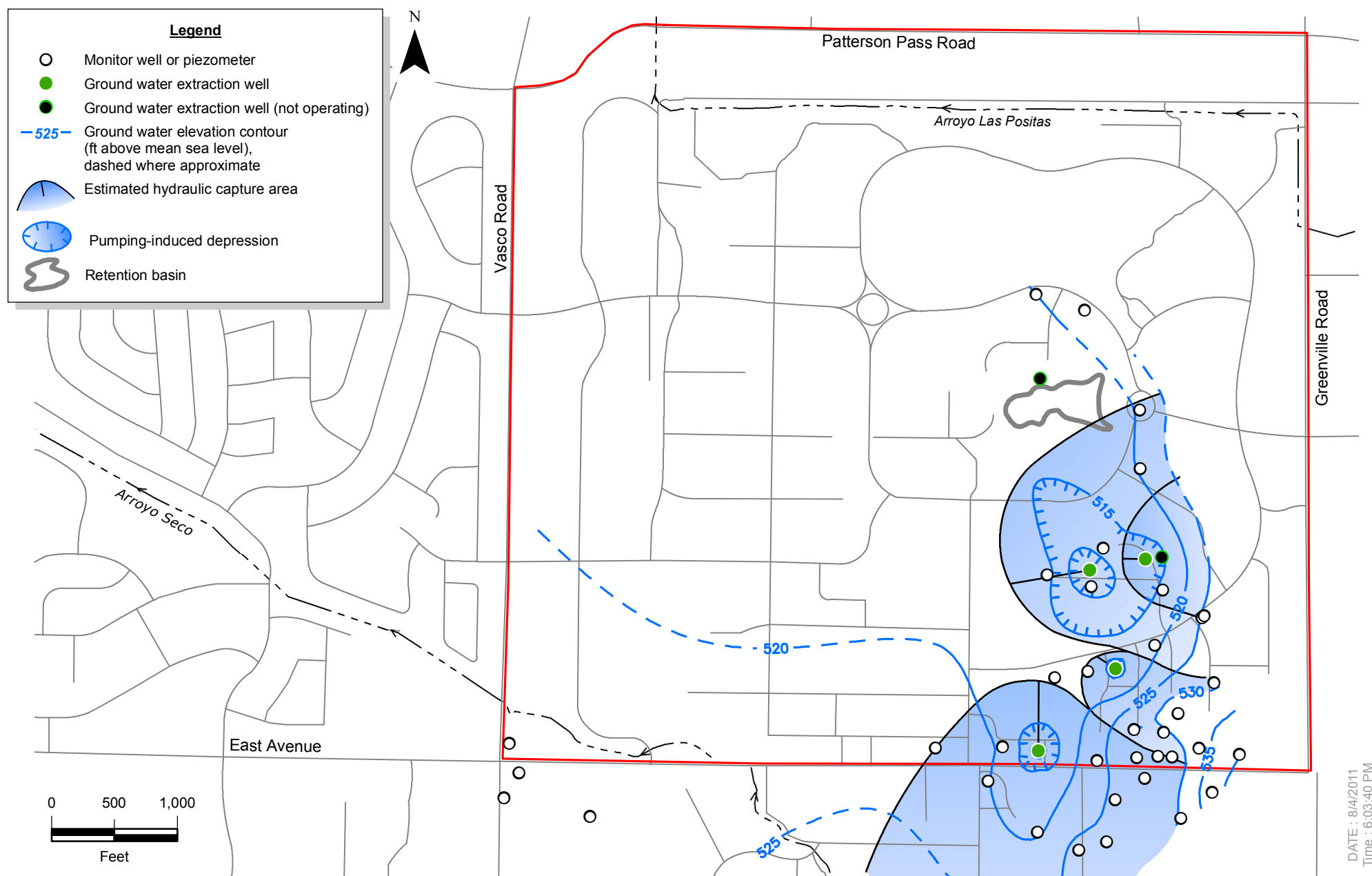


Figure 7. Ground water elevation contour map based on 43 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, second quarter 2011.